WHAT IS CLAIMED IS:

1. A moving image coding apparatus comprising:

a first coding section for compression-coding a moving image signal in a first time (T) and outputting the results as a coded moving image signal of a first information amount (V), and also obtaining control information;

a decoding section for decoding the coded moving image signal compression-coded by the first coding section and outputting the results as a decoded moving image signal; and

a second coding section for compression-coding the decoded moving image signal from the decoding section based on the control information obtained by the first coding section and a set second information amount (R) and outputting the results as a coded moving image signal of the second information amount (R),

wherein the control information includes:

the first information amount (V);

a plurality of second times (Tr) obtained by dividing the first time (T); and

a third information amount (Vi) as the information amount of a coded moving image signal output from the first coding section during each of the plurality of second times (Tr).

2. The moving image coding apparatus of Claim 1, wherein the first coding section includes:

a third coding section for compression-coding the moving image signal in the first time (T) and outputting the results as the coded moving image signal of the first information amount (V), and also obtaining the second time (Tr) and the third information amount (Vi); and

a total coded amount calculation section for calculating the first information amount (V) using the third information amount (Vi) obtained by the third coding section, and

the second coding section compression-codes the decoded moving image signal from the decoding section based on the second time (Tr) and the third information amount (Vi) obtained by the third coding section, the first information amount (V) obtained by the total coded amount calculation section, and the set second information amount (R), and outputs the results as the coded moving image signal of the second information amount (R).

3. The moving image coding apparatus of Claim 1, wherein the second coding section outputs a coded moving image signal of a fourth information amount (Ri) during each of the plurality of second times (Tr), and

the fourth information amount (Ri) is obtained by calculating

$$Ri = Vi \times R/V$$

using the first information amount (V), the second information amount (R) and the third information amount (Vi).

4. A moving image coding apparatus comprising:

a first coding section for compression-coding a moving image signal in a first time (T) and outputting the results as a coded moving image signal of a first information amount (V), and also obtaining control information;

a decoding section for decoding the coded moving image signal compression-coded by the first coding section and outputting the results as a decoded moving image signal; and

a second coding section for compression-coding the decoded moving image signal from the decoding section based on the control information obtained by the first coding section and a set second information amount (R) and outputting the results as a coded moving image signal of the second information amount (R),

5   wherein the control information includes:

a plurality of second times (Ti); and

a number (X) of the second times (Ti),

the plurality of second times (Ti) correspond to a plurality of third information amounts (Vr) obtained by dividing the first information amount (V), and

10   each of the plurality of second times (Ti) represents the time required for a coded moving image signal of the corresponding third information amount (Vr) to be output from the first coding section.

5. The moving image coding apparatus of Claim 4, wherein the second coding

15   section includes:

a third coding section for compression-coding the moving image signal in the first time (T) and outputting the results as the coded moving image signal of the first information amount (V), and also obtaining the second time (Ti); and

a number count section for counting the number (X) of the second times (Ti)

20   obtained by the third coding section, and

the second coding section compression-codes the decoded moving image signal from the decoding section based on the second time (Ti) obtained by the third coding section, the number (X) obtained by the number count section, and the set second information amount (R), and outputs the results as the coded moving image signal of the

25   second information amount (R).

6. The moving image coding apparatus of Claim 4, wherein the second coding section outputs a coded moving image signal of a fourth information amount (Rr) during each of the plurality of second times (Ti), and

5   the fourth information amount (Rr) is obtained by calculating

$$Rr = R/X$$

using the number (X) and the second information amount (R).

7. A moving image coding apparatus comprising:

10   a first coding section for compression-coding a moving image signal in a first time (T) and outputting the results as a coded moving image signal of a first information amount (V), and also obtaining control information,

wherein the control information includes:

a plurality of second times (Tr) obtained by dividing the first time (T); and

15   a third information amount (Vi) as the information amount of a coded moving image signal output from the first coding section during each of the plurality of second times (Tr).

8. A moving image coding apparatus for processing a signal including a

20   compression-coded moving image signal (coded moving image signal) and control information,

wherein the coded moving image signal is obtained by compression-coding a moving image signal in a first time (T) to give a first information amount (V),

the control information includes:

25   the first information amount (V) of the coded moving image signal;

a plurality of second times (Tr) obtained by dividing the first time (T); and

a third information amount (Vi) as the information amount of a moving image signal output during each of the plurality of second times (Tr) in the compression coding of the coded moving image signal, and

the apparatus comprises:

a decoding section for decoding the coded moving image signal and outputting the results as a decoded moving image signal; and

a second coding section for compression-coding the decoded moving image signal from the decoding section based on the control information and a set second information amount (R) and outputting the results as a coded moving image signal of the second information amount (R).

9. A moving image coding apparatus comprising:

a first coding section for compression-coding a moving image signal in a first time (T) and outputting the results as a coded moving image signal of a first information amount (V), and also obtaining control information,

wherein the control information includes a plurality of second times (Ti),

the plurality of second times (Ti) correspond to a plurality of third information amounts (Vr) obtained by dividing the first information amount (V), and

each of the plurality of second times (Ti) represents the time required for a coded moving image signal of the corresponding third information amount (Vr) to be output from the first coding section.

10. A moving image coding apparatus for processing a signal including a compression-coded moving image signal (coded moving image signal) and control

information,

wherein the coded moving image signal is obtained by compression-coding a moving image signal in a first time (T) to give a first information amount (V),

the control information includes:

a plurality of second times (Ti); and

a number (X) of the second times (Ti),

the plurality of second times (Ti) correspond to a plurality of third information amounts (Vr) obtained by dividing the first information amount (V),

each of the plurality of second times (Ti) represents the time required for a coded moving image signal of the corresponding third information amount (Vr) to be output in the compression coding of the coded moving image signal, and

the apparatus comprises:

a decoding section for decoding the coded moving image signal and outputting the results as a decoded moving image signal; and

a second coding section for compression-coding the decoded moving image signal from the decoding section based on the control information and a set second information amount (R) and outputting the results as a coded moving image signal of the second information amount (R).

11. The moving image coding apparatus of Claim 1, wherein the second information amount (R) is smaller than the first information amount (V).

12. The moving image coding apparatus of Claim 4, wherein the second information amount (R) is smaller than the first information amount (V).

13. The moving image coding apparatus of Claim 8, wherein the second information amount (R) is smaller than the first information amount (V).

14. The moving image coding apparatus of Claim 10, wherein the second information amount (R) is smaller than the first information amount (V).

15. A moving image coding method comprising:

a first coding step of compression-coding a moving image signal in a first time (T) and outputting the results as a coded moving image signal of a first information amount (V), and also obtaining control information;

a decoding step of decoding the coded moving image signal compression-coded in the first coding step and outputting the results as a decoded moving image signal; and

a second coding step of compression-coding the decoded moving image signal obtained in the decoding step based on the control information obtained in the first coding step and a set second information amount (R) and outputting the results as a coded moving image signal of the second information amount (R),

wherein the control information includes:

the first information amount (V);

a plurality of second times (Tr) obtained by dividing the first time (T); and

a third information amount (Vi) as the information amount of a coded moving image signal output in the first coding step during each of the plurality of second times (Tr).

16. The moving image coding method of Claim 15, wherein the first coding step includes:

a third coding step of compression-coding the moving image signal in the first time (T) and outputting the results as the coded moving image signal of the first information amount (V), and also obtaining the second time (Tr) and the third information amount (Vi); and

5   a total coded amount calculation step of calculating the first information amount (V) using the third information amount (Vi) obtained in the third coding step, and

in the second coding step, the decoded moving image signal obtained in the decoding step is compression-coded based on the second time (Tr) and the third information amount (Vi) obtained in the third coding step, the first information amount (V) 10   obtained in the total coded amount calculation step, and the set second information amount (R), and the results are output as the coded moving image signal of the second information amount (R).

17. The moving image coding method of Claim 15, wherein in the second coding 15   step, a coded moving image signal of a fourth information amount (Ri) is output during each of the plurality of second times (Tr), and

the fourth information amount (Ri) is obtained by calculating

$$Ri = Vi \times R/V$$

using the first information amount (V), the second information amount (R) and the third 20   information amount (Vi).

18. A moving image coding method comprising:

a first coding step of compression-coding a moving image signal in a first time (T) and outputting the results as a coded moving image signal of a first information amount 25   (V), and also obtaining control information;

a decoding step of decoding the coded moving image signal compression-coded in the first coding step and outputting the results as a decoded moving image signal; and

a second coding step of compression-coding the decoded moving image signal obtained in the decoding step based on the control information obtained in the first coding step and a set second information amount (R) and outputting the results as a coded moving image signal of the second information amount (R),

wherein the control information includes:

a plurality of second times (Ti); and

a number (X) of the second times (Ti),

the plurality of second times (Ti) correspond to a plurality of third information amounts (Vr) obtained by dividing the first information amount (V), and

each of the plurality of second times (Ti) represents the time required for a coded moving image signal of the corresponding third information amount (Vr) to be output in the first coding step.

19. The moving image coding method of Claim 18, wherein the second coding step includes:

a third coding step of compression-coding a moving image signal in the first time (T) and outputting the results as the coded moving image signal of the first information amount (V), and also obtaining the second time (Ti); and

a number count step of counting the number (X) of the second times (Ti) obtained in the third coding step, and

in the second coding step, the decoded moving image signal obtained in the second coding step is compression-coded based on the second time (Ti) obtained in the third coding step, the number (X) obtained in the number count step, and the set second

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information amount (R), and the results are output as the coded moving image signal of the second information amount (R).

20. The moving image coding method of Claim 18, wherein in the second coding step, a coded moving image signal of a fourth information. amount (Rr) is output during each of the plurality of second times (Ti), and

the fourth information amount (Rr) is obtained by calculating

$$Rr = R/X$$

using the number (X) and the second information amount (R).

21. A moving image coding method comprising:

a first coding step of compression-coding a moving image signal in a first time (T) and outputting the results as a coded moving image signal of a first information amount (V), and also obtaining control information,

wherein the control information includes:

a plurality of second times (Tr) obtained by dividing the first time (T); and

a third information amount (Vi) as the information amount of a coded moving image signal output in the first coding step during each of the plurality of second times (Tr).

22. A moving image coding method for processing a signal including a compression-coded moving image signal (coded moving image signal) and control information,

wherein the coded moving image signal is obtained by compression-coding a moving image signal in a first time (T) to give a first information amount (V),

the control information includes:

the first information amount (V) of the coded moving image signal;

a plurality of second times (Tr) obtained by dividing the first time (T); and

a third information amount (Vi) as the information amount of a moving image

5   signal output during each of the plurality of second times (Tr) in the compression coding of

the coded moving image signal, and

the method comprises:

a decoding step of decoding the coded moving image signal and outputting the

results as a decoded moving image signal; and

10   a second coding step of compression-coding the decoded moving image signal

obtained in the decoding step based on the control information and a set second

information amount (R) and outputting the results as a coded moving image signal of the

second information amount (R).

15   23. A moving image coding method comprising:

a first coding step of compression-coding a moving image signal in a first time (T)

and outputting the results as a coded moving image signal of a first information amount

(V), and also obtaining control information,

wherein the control information includes a plurality of second times (Tr),

20   the plurality of second times (Ti) correspond to a plurality of third information

amount (Vr) obtained by dividing the first information amount (V), and

each of the plurality of second times (Ti) represents the time required for a coded

moving image signal of the corresponding third information amount (Vr) to be output in

the first coding step.

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24. A moving image coding method for processing a signal including a compression-coded moving image signal (coded moving image signal) and control information,

wherein the coded moving image signal is obtained by compression-coding a moving image signal in a first time (T) to give a first information amount (V),

the control information includes:

a plurality of second times (Ti); and

a number (X) of the second times (Ti),

the plurality of second times (Ti) correspond to a plurality of third information amounts (Vr) obtained by dividing the first information amount (V),

each of the plurality of second times (Ti) represents the time required for a coded moving image signal of the corresponding third information amount (Vr) to be output in the compression coding of the coded moving image signal, and

the method comprises:

a decoding step of decoding the coded moving image signal and outputting the results as a decoded moving image signal; and

a second coding step of compression-coding the decoded moving image signal obtained in the decoding step based on the control information and a set second information amount (R) and outputting the results as a coded moving image signal of the second information amount (R).

25. The moving image coding method of Claim 15, wherein the second information amount (R) is smaller than the first information amount (V).

26. The moving image coding method of Claim 18, wherein the second information

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amount (R) is smaller than the first information amount (V).

27. The moving image coding method of Claim 22, wherein the second information amount (R) is smaller than the first information amount (V).

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28. The moving image coding method of Claim 24, wherein the second information amount (R) is smaller than the first information amount (V).